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ABSTRACT

A survey of the physical activities of police officers in New Jersey was conducted to collect information about the kinds of physical activities they perform, their present health status, the measures they take to maintain good physical condition, and their appraisal of the present civil service physical performance test battery. Another purpose of the study was to examine the relation between and among these measures and the effects of other factors, such as age, experience, rank, and type of assignment, on present health status. A Physical Activities Survey (PAS) questionnaire was devised and sent to 132 jurisdictions; 92 departments returned them for a total sample of 1,875 questionnaires. Findings included the following: (1) officers in large communities have, on the average, more years of service and are older than those in less populated areas; (2) most listed some physical symptoms or diseases developed since appointment; (3) sitting was identified by more than 3/4 as the physical activity required most on the job; (4) nine out of ten officers want to keep the 100-year agility test in the battery without change; less than 3/4 would keep the squat jump; (5) for each test, the relation between ability to pass the test and attitude toward its retention was highly significant; and (6) the relation of experience to physical activities was almost identical to that of age to physical activities. A copy of the questionnaire and tabulated results are appended. (KM)

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THE PHYSICAL ACTIVITIES SURVEY OF POLICE OFFICERS IN NEW JERSEY

Leo S. Goldstein, Ph.D.

June 1973
EDUCATIONAL TESTING SERVICE
PRINCETON, NEW JERSEY

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THE PHYSICAL ACTIVITIES SURVEY

OF

POLICE OFFICERS IN NEW JERSEY

Final Report

Study Conducted

for

Department of Civil Service

and the

State Law Enforcement Planning Agency

State of New Jersey

by

Educational Testing Service
Princeton, New Jersey

Project Director: Leo S. Goldstein, Ph.D.

June, 1973

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Although this report of the Physical Activities Survey bears the sole authorship of the undersigned, whatever success the survey may have achieved is due mainly to the contributions in time and/or thought of these individuals and organizations:

The Department of Civil Service, State of New Jersey and the New Jersey State Law Enforcement Planning Agency for supplying the necessary funding.

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Finally, the deepest appreciation and gratitude is expressed to the chiefs and their men who contributed the information on which the study is based. Hopefully, their contribution will serve to benefit their brother officers.

None of the above bear responsibility for any errors of omission or commission which may have found their way into this report. Such responsibility is that of

Leo S. Goldstein, Ph.D.
Research Psychologist

Civil service jurisdictions participating

in the Physical Activities Survey

County	Municipality
Bergen	Bergenfield
	East Rutherford
	Edgewater
	Elmwood Park
	Fairlawn
	Fairview
	Fort Lee
	Garfield
	Hackensack
	Lodi
	North Arlington
	Ridgewood
	Rutherford
	Teaneck
	Wallington
	Wood-Ridge
Burlington	Burlington City
	Burlington Township
	Florence
	Maple Shade
	Mount Laurel
	Riverside
	Willingboro
Camden	Gloucester City
	Gloucester Township
	Pennsauken
Cape May	Cape May
	Lower Township
	Wildwood Crest
Cumberland	Bridgeton
	Millville
	Vineland
Essex	Belleville
	Bloomfield
	East Orange
	Irvington
	Millburn
	Newark
	Nutley
	Orange
	South Orange
	Verona
	West Orange
Gloucester	Monroe
Hudson	Bayonne
	Jersey City
	Kearney
	North Bergen
	Union City
	Weehawken
Mercer	Ewing
	Hamilton
	Lawrence
	Trenton
Middlesex	New Brunswick
	Perth Amboy
	Sayreville
	South Plainfield
	Woodbridge
Monmouth	Belmar
	Freehold Boro
	Keyport
	Long Branch
	Matawan Township
	Middletown
Morris	Boonton
	Dover Town
	Jefferson Township
	Montville
	Morristown
	Rockaway Township
Ocean	Jackson
	Lakewood
	Pt. Pleasant
	Pt. Pleasant Beach
	Seaside Heights
	Seaside Park
Passaic	Clifton
	Paterson
	Pompton Lakes
	Ringwood
	West Milford

County	Municipality	County	Municipality
Sussex	Newton	Warren	Washington
	Sparta		
Union	Clark		
	Elizabeth		
	Hillside		
	Linden		
	Plainfield		
	Rahway		
	Scotch Plains		

Unfortunately, questionnaires from Ventnor City (Atlantic) and Edgewater Park (Burlington) were returned too late for inclusion in the study.

We wish to acknowledge the receipt of completed questionnaires from the police jurisdictions listed below. However, since civil service requirements are not used in these municipalities, the data could not be included in the study.

Bernardsville	Lambertville
Bound Brook	Maplewood
Bridgewater	Princeton Boro
Closter	Ramsey
Dover Township	Secaucus
Englewood	Spotswood
Fairfield	Wayne
Glassboro	

PHYSICAL ACTIVITIES SURVEY

Introduction

The police officer's job has changed greatly over the last three decades. Much of this change is a reflection of changes in society generally which have come about since the era of World War II. Increases in population, tremendous scientific advances, "minority" pressures for equality in education and employment, for example, have necessarily had their effect on the police profession. Even considering the police officer's job as a profession is a fairly recent innovation.

Because of these, and other changes, today's police officer is subject to a variety of dangers and pressures not previously present. The generally sedentary nature of police activities coupled with irregularly occurring demands for instantaneous physical acuity and exertion make it imperative that police officers be in excellent physical condition not only upon entering the profession but particularly through their later years on the force. Many police officers can relate at least one instance in which a brother officer, confronted with the need for sudden physical demand succumbed to failure of either heart or central nervous system.

The State of New Jersey Department of Civil Service and the State Law Enforcement Planning Agency, cognizant of the physical demands of the police officer's role, authorized ETS to conduct a survey of police officer's physical activities in jurisdictions within the state. The prime objective of this survey was to collect

information about the kinds of physical activities police officers perform, their present health status, what measures they take to maintain good physical condition and their appraisal of the present civil service physical performance test battery. Another aspect of the study was to examine the relation between and among these measures and the effects of other factors such as age, experience, rank, and type of assignment on present health status. This information would be used to assist the Department in an evaluation of the efficacy of the constituent parts of the present physical performance test, to uncover any significant relations between job requirements and the maintenance of good health, and to signal the need for specific action that the Department, SLEPA, or other state or local agencies might take in order to assist police officers in maintaining good physical condition.

Development of the Physical Activities Survey Questionnaire

In order to accomplish the stated objective a Physical Activities Survey questionnaire was developed to elicit information about the name of the community in which the respondent worked, his rank, duty assignment, length of experience, age, height, weight and the percent of time spent during an "average" day in each of 18 activities covering a broad range of physical actions police officers might perform. On the basis of critiques received from Department of Civil Service personnel and members of the Police Training Commission, the questionnaire was completely revised in order to accomplish a much broader investigation.

Rather than having respondents react to a predetermined list of physical activities, the revised questionnaire asks the respondent to name those physical activities most often required by his job. In addition to the background information requested on the earlier form, the later version collects information about weight change since appointment, a self-estimate of present physical condition, recency of physical examination, changes in visual and auditory acuity since appointment, medical complaints or conditions developed, type and regularity of exercise, importance of physical condition to the job, availability of a physical fitness program in the jurisdiction, attitude toward each part of the civil service physical performance test (whether to keep, eliminate or change it) and whether the respondent could pass each part if he were tested now. This second form of the questionnaire was submitted to Civil Service and Police Training Commission personnel for review. Some relatively minor, but nevertheless helpful, changes were suggested and incorporated into the final version. In order to detect any unforeseen or undiscovered difficulties with the questionnaire or the directions for its administration, a field test was conducted with ten members of the Lakewood Police Department. This trial went smoothly; there was no apparent need for additional changes. The Physical Activities Survey (PAS) questionnaire was then distributed to police officers within New Jersey, in accordance with the research design.

Design of the Survey

The frequency and severity of the kinds of demands made on police officers may be related to and/or affected by the community in which the police officer performs his duty. Therefore, a broad sampling was made of police jurisdictions within the state. Initially, communities within each of the 21 counties were selected from an alphabetical listing of police departments which indicated the total number of men in each department as well as the number at each rank from patrolman to chief.* Within each county, the largest community and the smallest (with at least 10 men) were identified. Of the remainder, every third or fourth community was chosen for inclusion in the survey. In this manner, 108 jurisdictions were selected for the first contact.

A number of PAS questionnaires equal to approximately 25 - 30 percent of the men in the jurisdiction were addressed and mailed to the Chief of Police of each selected department. Accompanying each mailing was a letter from the Director of Examinations, Department of Civil Service, to the Chiefs of Police, describing the intent of the survey and requesting their cooperation. In addition, a letter from the project director and directions for administration of the questionnaires were included. (See Appendix for copies of these documents). The requested date for returning the completed questionnaires was approximately 10 days after the estimated time of their receipt at the designated police headquarters.

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*Report prepared by the State of New Jersey, Police Training Commission, 1968.

Inadvertently, questionnaires were sent to communities which do not utilize civil service procedures for selecting their police officers. Thirty-nine of the first 108 communities contacted are in this category. In order to compensate for the reduction in sample size, another selection was made from a roster of civil service communities.

Since relatively few departments (with ten or more men) then remained unsampled, it was decided to include them in the study. Thus, the police departments of 132 communities which select their police officers through the state civil service were contacted as potential participants in this survey.

Representativeness of the sample

Since questions pertaining to the civil service physical performance tests are an integral part of the questionnaire and the respondents' attitudes toward these tests are of paramount interest to the sponsors of the survey, questionnaires returned from non-civil service jurisdictions were not included in the study. Although a comparative study was suggested, the small size (approximately 150) of the non-civil service sample makes this impracticable.

Of the 187 civil serivce jurisdictions, questionnaires were sent to 132. Completed PAS questionnaires were received from 92 of these jurisdictions in time for inclusion in the study. Returns from two communities arrived too late to be processed. Therefore, seventy percent of the civil service police departments contacted supplied the data for this survey.

One of the first questions which must be asked of a survey of this type is "How representative of the population being studied is the sample of completed returns?" The key word here, of course, is "representative".

Jurisdictions from 17 of the state's 21 counties are represented in the sample. Two of the counties not represented (Somerset and Hunterdon) have no jurisdictions which use civil service procedures for the selection of their police officers. Only Atlantic and Salem counties are unrepresented because none of their civil service jurisdictions elected to participate in the survey. On this gross county level, the sample is representative.

A report, prepared by the Police Training Commission referred to earlier, lists the number of men at each rank from patrolman to chief in the organized police departments in the state as of April, 1968. This personnel breakdown or "census" provides a base for comparison for the PAS sample. For the 17 counties represented in the PAS, the "fit" between the 1968 census data and the PAS sample is quite close (Table 1). The largest deviation, that for Essex county, is less than 6%. The "overrepresentation" of Mercer and Union counties is less than 3% in each case.

In addition to representativeness by county, we can examine representativeness by rank. The number and percent of men at each rank from patrolman to chief, for the 1968 data and for the PAS sample, are given in Table 2. Here, the differences in percent at each rank are relatively small. The largest, an "underrepresentation"

of patrolmen, is only 3.5%. The "overrepresentation" of sergeants and detectives is less than 2.5% in each case. If, for each rank, the ratio of men in the PAS sample to the number in the 1968 data is considered, we note that between 12 and 20 percent of each rank except Inspector and Chief is represented in the PAS sample. Since, however, the number of chiefs is directly related to the number of departments, the 13 chiefs represent almost 15 percent of the jurisdictions sampled.

The distribution of men across assignments is given in Table 3. Although no comparative figures are available it is assumed that the large proportion of men assigned to patrol duties is not unrepresentative of general statewide conditions.

In general, the PAS sample of 1875 police officers in 92 departments located in 17 counties of New Jersey reflects fairly closely the county and rank distributions of the population of police officers in the state. Generalization of the findings of the PAS is defensible.

Results

1. Characteristics of police officers related to community size.

The PAS sample was classified into four categories of community size. The number and percent of sample questionnaires in each category within each of the 17 counties is shown in Table 4.

Six percent of the total sample comes from police departments in communities of fewer than ten thousand persons. The greater portion of these returns come from Bergen, Burlington, Cape May,

Monmouth and Ocean counties. More than 28 percent of the sample comes from communities of ten to thirty thousand. Bergen, Burlington, Morris and Union counties provide the majority. Most of the returns from communities in the thirty to fifty thousand category, which accounts for almost 27 percent of the total, come from Bergen, Essex, Hudson, Middlesex and Union. The largest category, 39.1 percent of the sample, is from communities with more than fifty thousand people. Police jurisdictions in Essex, Hudson, Mercer, Passaic and Union supply more than 80 percent of these completed questionnaires.

Is there a relationship between the size of the community and certain characteristics of its police officers such as years of experience, age, height, and weight? Analysis of the data of Table 5 and Table 6 reveals a significant difference in both the experience and age of police officers between communities of different size. In both cases there is a straight line trend; the men in departments in larger communities, on the average, have more years of service and are older than police officers in less populated jurisdictions. Although similar differences hold across rank, i.e., men in higher ranks are, on the average, older and more experienced than men in lower ranks, significant differences do not exist, within rank, between communities of different sizes.

Exploring the possible influence of community size on the height and weight characteristics of its police force, Table 7 indicates no such effect. As would be expected, taller police officers generally

are heavier than their shorter peers. However, there is no evidence to indicate significant differences in weight between men serving in communities of different size, either across or within height.

Although the inter-community differences in experience and age are statistically significant, the magnitude of the largest difference (between the smallest and largest communities) is less than three-and-a-half years. For subsequent analyses, the data are pooled across communities; no differentiations are made on the basis of community size.

2. Physical characteristics and health status of the respondents

The typical New Jersey police officer, as defined by the PAS sample, is approximately 37.5 years old, stands just under 5'11", weighs almost 189 pounds and has been on the job for 11.5 years (Tables 8 through 11). He has gained more than 14 pounds since appointment (Table 12). If asked to describe his present physical condition, he would most likely answer "good" (Table 13). He probably did not wear glasses when he was appointed. Chances are still about two-to-one that he doesn't use glasses for reading and about nine-to-one that he doesn't need them for driving (Tables 14, 15, 16). In all likelihood, his hearing hasn't become impaired (Table 17). Although men fitting this description may actually exist, this "typical" police officer is only a statistical concoction. (See Document A in Appendix)

Of more immediate concern, however, is the health status of New Jersey's police officers as reflected by the PAS sample.

By self-report, 88.8% of the respondents claim to be in good or excellent health (Table 13). Nevertheless, more than half the group, (57%) which checked those physical symptoms or diseases they had developed since appointment checked at least one (Table 18). More than a quarter of the group (28.6%) checked two or more complaints. An examination of these specific conditions (Table 19) shows back trouble, loss of teeth, and hemorrhoids to be those most frequently mentioned. A not inconsequential percent of the group lists high blood pressure, ulcer, and nervous disorder, while more than ten percent indicate other unclassified physical problems. A closer investigation of how these complaints relate to other characteristics of the police officer and his job is made later in this report.

How important is good physical condition for the effective performance of the police officer's job? Sixty-nine percent of those replying to this question said that it is very important (Table 20). This attitude is probably reflected in the data of Table 21 which show that more than 63 percent of the respondents do some exercise regularly each week. Table 22, in addition, shows that those who feel most strongly about the importance of physical condition are also those most likely to engage in some regular exercise. Calisthenics is the most popular exercise, although 36.5 percent perform some exercise other than those listed (Table 23).

3. Physical activities required by the job

The sedentary nature of the police officer's job is evidenced by the data of Table 24. Sitting is identified by more than three-

fourths the group as the physical activity required most on the job. Walking is named by over half the group, standing by almost six percent, and driving by five percent. Of those activities requiring somewhat more exertion, running is most frequently mentioned (11.7%). Wrestling (some form of body contact), lifting and climbing evoke a response from less than three percent of the group. We will return later to a fuller examination of how these physical activities on the job relate to other personal and occupational aspects.

4. Evaluation of the physical performance test battery.

Thus far, we have made an overview of the kinds of physical activities police officers perform, their present health status, and the measures they take to maintain good physical condition. Let us now explore the PAS sample's appraisal of the six tests of the civil service physical performance battery (Table 25).

The 100-yard agility test is the most popular. Nine out of ten officers responding elect to keep it in the battery as it is without change. In contradistinction, less than three-fourths of the group would keep the squat jump; 16.1% would eliminate it completely. The remaining tests are accepted, as is, by about eighty percent of the group, although chinning and broad jump would be eliminated by more than ten percent.

Which parts of the physical performance test battery do the respondents think they could pass if they were to be tested today? The differential responses are supplied in Table 26 which shows that the largest percentage of the group feels that it could pass

the sit ups test (82.8%) while the squat jump would be passed by only 69.1%.

How is the officer's confidence about passing the test related to his attitude about keeping it in the battery, eliminating it or changing it? This question is answered by the data of Table 27. For each test, the relation between ability to pass the test and attitude toward its retention in the battery is highly significant. Generally, those officers who feel they could pass the test are more strongly in favor of keeping it as it is; those who feel they couldn't psss are more strongly in favor of eliminating the test.

5. Factors related to physical activities required by the job.

It was noted earlier (Table 24) that sitting, walking, and running are the physical activities mentioned most frequently by the respondents as being required on the job. In this section, the relation between these activities and other personal and occupational factors is examined more closely.

If we discount the ranks above captain, because of the relatively small numbers represented in the sample, we note the increased tendency for "sitting" to be reported as a required activity as rank increases (Table 28). This probably is a reflection of the increase in administrative duties with rank. Walking appears to be an activity more related to the work of detectives than men of other ranks.

Those engaged in administrative duties do proportionately more sitting than men with other assignments (Table 29). This corroborates the findings of Table 28 mentioned above. Men assigned to narcotics

divisions report the least amount of sitting and the greatest amount of running. Training, traffic, and records people do the most standing, while those in juvenile work and traffic report the greatest incidence of driving on the job. Presumably, these findings reflect directly the nature of work done by men assigned to the different divisions.

The relation of experience to physical activities (Table 30) is almost identical with that of age to physical activities (Table 31). Older and more experienced officers tend to spend a greater proportion of time sitting than do younger, less experienced men. Conversely, running as part of the job is reported more frequently by the less experienced, younger police officers; it decreases as a reported activity directly with an increase in age and experience.

A change in an individual's weight may be regarded as an index of both aging and health status. Table 32 shows that men with the greatest gain in weight since appointment report the greatest percent of sitting and the least of running. Those men with extreme weight losses also report a high proportion of sitting but they walk and run more than do the men who have gained more than 30 pounds.

Is there some relation between the kinds of activities an officer performs on the job and the symptoms or diseases he claims to have? The answer to this question is contained in the findings of Table 33 which indicate that the relationship, if one exists, is not very strong. A note of explanation about the interpretation of this table is needed before proceeding.

The percents shown are for the men who report specific activity and the presence of a specific disease or symptom, i.e., "yes" to both the activity and the disease. What is not indicated is the percent of men who claim the activity but not the disease or the percent who claim the disease but not the activity, i.e., the "yes-no" and "no-yes" cases. Therefore, although a percent reported in the table may be higher than another, for a specific disease, it may not be statistically significant while a smaller percent entry is. For the 1334 men who report "sitting" as a required activity, a significantly high percent report having hemorrhoids. The incidence of varicose veins for this group is significantly less than would be expected. The percent of cases of hemorrhoids reported by the men who walk on the job is also lower than chance expectation. Those police officers who report running as a job requirement also report less-than-chance percents of back trouble and loss of teeth. This may be an indication that those men who are required to walk or to run on the job may be in better health than those who are less active. This contention seems warranted on the basis of the entries in the "None" column. A significantly small percent of those who sit on the job claim to have no diseases. However, the proportion of those who walk or run on the job and who claim no symptoms or diseases is significantly greater than expected.

6. Factors related to present health status.

The PAS questionnaire provides two indices of present health status; the self-report of present physical condition and the symptoms or diseases claimed by the respondent. We look first at some factors which may be related to the self-report of present physical condition.

From Table 34, we note that reported health status appears to vary inversely with age, i.e., those officers reporting themselves in excellent health are, on the average, younger than those claiming good, fair, or poor health. Average age increases as reported health status worsens. This general age effect is also apparent in Table 35. As years of experience as a police officer increase, the percent reporting excellent or good health decreases.

The relation of rank to reported health status, Table 36, tends to parallel that of age and experience, although the small number of respondents at the higher ranks makes this evaluation somewhat equivocal. The disparity in the number of respondents in the various assignment categories also makes the interpretation of the data of Table 37 somewhat difficult. However, those assigned to the Narcotics division and those in Training do report the largest percent of respondents in excellent or good health; those in Communications and Records and Identification report the largest percents of fair and poor health status.

The effect of extreme weight gain on reported physical condition is reflected in Table 38. More than 20% of those gaining more than

30 pounds since appointment consider themselves to be in fair or poor health.

The presence of diseases or symptoms, too, apparently influences the individual's estimate of his health status. Compared with those who state that they have no symptoms or diseases, those respondents claiming at least one disease report relatively higher incidences of fair or poor health (Table 39). This is particularly true for those claiming lung disease, heart disease, varicose veins, high blood pressure, or nervous disorder.

The police officer's evaluation of his present physical condition is directly related to the confidence he expresses in his ability to pass the civil service physical performance tests (Table 40). In each case, the relation is clear and strong; the higher the estimate of personal health status the greater the confidence in one's ability to perform successfully.

As proposed above, the presence of disease or symptoms is another index of the officer's health status. An indication of the effect of age on the reported presence of disease is clearly evident in Tables 41 and 42. All the diseases and symptoms investigated, except flat feet and lung disease, show a significant increase in incidence beginning sometime in the fourth decade of life. Less than forty percent of respondents in each of the age categories above 30-34 report complete absence of disease or symptoms, compared with incidences (of no disease) above 50% for those in the younger age categories.

This finding is reproduced almost identically in the effect of experience. Incidence increases dramatically after approximately 10-14 years as a police officer for all diseases, with the two exceptions noted earlier. This length of experience is achieved usually by age thirty to thirty-five. The relatively high incidences of heart disease and high blood pressure for men of 45 and older as for those with 20 or more years experience, should be noted. Back trouble, in particular, and hemorrhoids should also be cited because of their inordinately high frequency of occurrence. These data may signal the need for police jurisdictions, on the local or state level, to take some preventive or ameliorative actions in regard to these conditions which may endanger the police officer's life or cause him much discomfort.

The relation of presence of disease to rank, Table 43, is not as clear. There is a tendency for men at the ranks of sergeant and higher to report a higher percent of complaint. Loss of teeth, ulcer, and other unclassified conditions are of significance here. (The data for flat feet, although statistically significant, should be viewed with suspicion because of the extremely low incidence of the condition and because of the low number of respondents in the ranks above captain.) Hemorrhoids, back trouble and high blood pressure tend to be reported more frequently by men at the sergeant's rank or higher.

Heart disease, hernia, and the lack of disease seem to be associated with a man's assignment (Table 44). To a lesser extent, this appears to be so also for the complaint "loss of teeth."

The highest percents of incidence of heart disease are reported by men in unclassified assignments, traffic, communications, records and identification, and detective divisions. Hernia occurs most frequently among men in communications, detective division, and other unclassified assignments. Proportionately, the highest incidence of the presence of at least one disease or symptom is reported by men in communications work. Administrators, traffic, records and identification, detective, and juvenile assigned personnel report incidences of more than 60%.

Table 45 examines the association of extreme weight changes with the reported presence of disease. Perhaps not unexpectedly, back trouble and high blood pressure can be singled out as being significantly related to extreme gains, i.e., twenty or more pounds. This is true too for hemorrhoids, loss of teeth, and ulcer (at a lower level of statistical significance.) These data suggest that the significantly higher percents of older and more experienced officers reporting back trouble and high blood pressure might be associated with increased weight. Further investigation of this point might indicate the need for preventive measures such as more carefully regulated diet and regular exercise schedules.

There is some evidence, Table 46, that performing some form of exercise regularly is associated with a lower reported incidence of disease. Lung disease, loss of teeth, and ulcer are conditions reported significantly more frequently be respondents who engage in no regular exercise than by those who do some exercise either regularly or irregularly.

Calisthenics, the most popular form of exercise, is practiced by a greater proportion of younger men (those under 35). Swimming is preferred to a greater degree by men over 40 years of age. Lifting weights and jogging tend to be performed more by younger men although the age differentiation is not as pronounced as with calisthenics (Table 47).

Among the men who report some form of exercise on a regular or irregular basis, Table 48, there appears to be an underlying age relationship. A greater proportion of men over 40 exercise irregularly while younger men, in the main, exercise regularly one to three times per week.

7. Other indices of health awareness.

By far, the largest portion of those reporting, almost 73%, have had a doctor's examination within the past year; more than half of these within the last six months (Table 49). A relatively small number, less than 12%, had their last physical examination by a doctor more than two years ago. These data indicate a positive attitude toward the maintenance of good health.

Another aspect of this general attitude is evident in Table 50. Almost 80% of the respondents representing jurisdictions without physical fitness programs express the view that such programs should be made available. Using as a benchmark the percent of participation in communities which do provide fitness programs, Table 51, we would estimate that more than half this group would avail itself of the opportunity to maintain good physical condition if a program were made available.

Discussion

The responses to the Physical Activities Survey questionnaire of 1875 police officers employed in 92 municipalities of 17 of New Jersey's 21 counties were analyzed; the findings have been presented in the preceding sections. Attention has been focused primarily on the kinds of activities police officers perform on the job and how these are related to other occupational and health factors. We have also been concerned with the present health status of these men and how it is associated with job characteristics. An evaluation of the respondents' attitudes toward the civil service physical performance tests has also been presented.

A study such as this would be remiss if it merely presented its findings without interpreting the results or without attempting, however feebly, to draw conclusions on which future actions might be based. In order not to be derelict in this regard, the following interpretations and suggestions are offered.

In comparison with many other occupations, that of police officer is staffed by selected individuals who are required to meet and comply with fairly exacting intellectual, physical, and psychiatric standards. However, particularly in the physical domain, time and the nature of the police officer's job soon appear to have deleterious effects. Within ten to fifteen years after first donning the uniform, police officers begin to increase sharply the frequency of their physical complaints. This upward trend continues over time.

A substantial portion of this diminishing health status appears age-related but much of it may also be due to the largely sedentary

features of the job. We have evidence that this decline is somewhat less severe for those who are more active either on the job or because of a self-imposed routine of physical exercise. Extreme increases in weight also seem to be implicated in physical deterioration. Therefore, some remedies or suggestions for the maintenance of good physical health are almost self-evident.

Some form of regular exercise combined with a program of weight control might be quite effective in maintaining or improving physical condition thereby reducing the incidence of complaints. The implementation of such programs at the local level probably should include some preliminary diagnostic work-ups in order to identify those men who are most in need. For these, the program should be mandatory and should provide for periodic examination or evaluation to determine its effectiveness. For those men who are in good physical condition, the program would be voluntary until a change in condition necessitated making it mandatory. Since four out of five respondents indicated their receptiveness to the idea of a physical fitness program, putting a program such as that outlined above into effect statewide might be accomplished, with federal and/or state assistance in funding and planning.

The New Jersey Police Training Commission has recently recommended that a mandated physical training program be introduced in the police academies in order to help trainees "improve the general muscle tone and sharpen the mental process, ... prepare for participation in Defensive Tactics, First Aid, Firearms Training and other activities of a physical nature, ... (and) through teaching proper lifting

techniques and giving exercises aimed at strenghtening seldom used back and stomach muscles to reduce the incidence of occupational hazards such as 'bad backs', hernias, muscle strains or tears, etc."[1] The trainee soon develops into the experienced veteran who, in the absence of appropriate maintenance measures, will fall prey to the rigors of ageing and the job. Why not then see to it that a program of this type is made available to the men after they have completed academy training?

The large proportion of complaints of "back trouble" and "hemorrhoids" might well be related to the high incidence of sitting, either on a chair or in a patrol car. Here, several possibilities suggest themselves. The simplest one might be getting off the chair or the car seat periodically and just bending or stretching or walking around. As a second resort, the ingenuity of orthopedic specialists and engineers might be enlisted to design more comfortable and more efficient seats. Where feasible, rotation of assignments might be made periodically so there is alternation between sedentary and more active roles.

According to our data, heart disease and high blood pressure tend to increase rather sharply after the age of 45. A program of exercise and weight control might have some positive effect here. Another preventive measure, however, would be the instituting of an annual physical examination by a physician for all men over 45 and

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[1] Curriculum Survey Report, State of New Jersey Police Training Commission, April, 1972.

somewhat less frequently for younger officers. Again, there is a cost factor to be considered but, certainly, sources of funding should be explored.

Going off on a different tangent, let us consider some possible suggestions regarding the civil service physical performance tests. One overriding question is: "Should the present battery of six tests be retained?" Although more than seventy percent of the respondents elected to keep all tests as they are, a fairly substantial minority voted to eliminate the squat jump, broad jump, and chinning bar tests. Any changes in this area would be at the discretion of civil service authorities. What has been uncovered here is an indication of discontent. Probably some sort of physical ability measures are needed for selection, but one wonders whether some measures might be developed which bear closer relation to the requirements of the job and which might be predictive of future physical condition.

Whatever decisions may be made regarding these and earlier suggestions, it is the hope of at least one researcher that the data presented herein may in some way improve the "policeman's lot" which, alas, is not a happy one.

Document A

PHYSICAL ACTIVITIES SURVEY

1. Name of municipality _____
2. Number of years as police officer 11.5 years
3. Rank or grade Table 2
4. Assignment (for example, patrol, narcotics, juvenile) Table 3
5. Age 37.6 years
6. Height ft. 5 in. 10 1/2
7. Weight 188.9 pounds
8. Approximately how many pounds did you weigh when you were appointed? Table 12
9. Your present physical condition is: excellent 32.6 good 56.2 fair 10.3 poor 1.0
10. How long ago did a doctor give you a physical examination? months Table 49
11. Did you wear eyeglasses at the time you were appointed? yes 7.6 no 92.4
12. Do you wear eyeglasses for driving? yes 12.1 no 87.9 13. for reading? yes 34.9 no 65.1
14. Since appointment, has hearing with either ear become difficult? yes 7.8 no 92.2
15. Check all of the following that you have developed since appointment:
    hemorrhoids 16.4 loss of teeth 20.6 flat feet 1.9 high blood pressure 8.8
    lung disease 1.2 varicose veins 3.2 hernia 4.7 nervous disorder 7.2
    back trouble 24.0 heart disease 3.0 ulcer 7.4 none 43.9
    other (describe) 10.6
16. Check all of the following exercises that you do routinely:
    lift weights 16.0 jog 20.5 other (describe) 36.5
    calisthenics 37.4 swim 25.3 none 24.0
17. Approximately how often do you do the exercise(s) checked above:
    1-3 times a week 42.1 4-7 times a week 21.5 irregularly 35.2 never 1.2
18. How important is good physical condition for the effective performance of your job?
    very important 69.0 of average importance 28.8 of little importance 2.3
19. Why do you feel this way? _____
20. Does your jurisdiction have a physical fitness program? yes 5.2 no 94.8
21. If yes, do you participate? yes 52.2 no 47.8 22. Is it mandatory? yes 26.7 no 73.3
23. If no program is provided, do you think one should be? yes 79.1 no 20.9
24. Indicate whether each part of the present civil service physical performance test should be kept as is, eliminated or changed, by checking the appropriate boxes. (Passing performance for each part is shown in parentheses)

	1 Chinning Bar (5)	2 Sit Ups (22)	3 Broad Jump (6'6")	4 Push Ups (15)	5 100 yd. Agility Run (25 sec.)	6 Squat Jump (28)
Keep as is	78.4	82.4	82.5	81.4	90.1	73.5
Eliminate	10.9	4.0	11.8	4.1	5.1	16.1
*Change	10.7	13.6	5.7	14.5	4.8	10.4

25. If you took the test today, which parts would you pass? 71.4^{1} 82.8^{2} 77.3^{3} 79.3^{4} 75.7^{5} 69.1^{6}
26. What physical activities (such as walking, sitting) does your job require most?
    Sitting:77.3 Walking:54.7 Running:11.7 Standing:5.9 Driving:5.0 Lifting:2.3
    Climbing:2.5 Wrestling:2.1 Other:3.5

*Describe all changes on the back of this sheet. Add any other comments you wish.

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Means or percentages based on number of PAS sample responding to each item.

Document B

State of New Jersey

DEPARTMENT OF CIVIL SERVICE
ARNOLD CONSTABLE BUILDING
FRONT AND MONTGOMERY STREETS
TRENTON, N. J. 08625

JAMES A. ALLOWAY
PRESIDENT

WILLIAM DRUZ
CHIEF EXAMINER & SECRETARY

March 29, 1973

TO: Chiefs of Police in Selected New Jersey Communities

SUBJECT: Physical Activities Survey

As part of its continuing program for upgrading selection procedures the Department of Civil Service, in association with the State Law Enforcement Planning Agency, has arranged for Educational Testing Service to conduct a survey of physical activities of policemen in New Jersey. The information collected will aid the Department in making decisions concerning the use of physical performance tests and related matters.

As Chief of Police of one of these selected communities for this study, your cooperation, and that of the men in your command, is being requested. Your assistance will result in findings which can be beneficial to police departments throughout the state.

Very truly yours,

Wayne S. Boyd

Wayne S. Boyd
Director of Examinations

Document C

April 4, 1973

Dear Chief:

The New Jersey State Department of Civil Service, in cooperation with the State Law Enforcement Planning Agency, has requested Educational Testing Service to conduct a survey of policemen in order to collect information which will be helpful in evaluating physical performance tests now used for selection of police candidates.

Through the use of random sampling methods, your community has been selected for participation in this study. Your cooperation can help it succeed.

Please have the accompanying questionnaire forms distributed to a sample of men in your command. The men are to be instructed not to put their names on the forms; all responses are to be anonymous. It will take approximately ten to fifteen minutes to fill out a form. All completed forms should be returned to ETS in the enclosed postage-paid envelope.

If you wish to receive a copy of the final report of this study, please fill out and return the enclosed form in the envelope with the completed questionnaires. I will be pleased to answer any questions you may have about this study. Please have the questionnaires returned by _____. Thank you for your interest and cooperation.

Sincerely,

Leo S. Goldstein

Leo S. Goldstein, PhD
Research Psychologist

LSG:pf

enc

Document D

PHYSICAL ACTIVITIES SURVEY

Directions for Administration

*1) Assemble a sample of men in your command, in one central location. Include representatives of all ranks, if possible.

2) Instruct the men to write their answers to all questions on the form. Remind them not to put their names on the form; all replies are to be anonymous.

3) The back of the form is to be used to describe any recommended changes in the present civil service physical performance test. Any additional comments concerning the questionnaire, physical performance testing or related matters should also be written on the back of the form.

4) When everyone in the group has completed filling out the form, appoint one member of the group to collect all forms, insert them in the enclosed return envelope, and seal the envelope. Insert the request form for a copy of the final report in the envelope before it is sealed.

*The number of men sampled should equal the number of questionnaires which have been sent in this packet. If the entire sample cannot be assembled at one session, additional sessions should be held.

Document E

Please send me a copy of the final report of the Police Physical Activities Survey.

Name:

Address:

Table 1

Number and percent of police officers in 1968 census and PAS sample, for counties represented in Physical Activities Survey.

	Police Officers 1968		Police Officers PAS Sample		% Difference PAS-1968
County	N	%	N	%	
Bergen	1633	13.7	255	13.6	-0.1
Burlington	230	1.9	63	3.4	1.5
Camden	592	5.0	37	2.0	-3.0
Cape May	157	1.3	19	1.0	-0.3
Cumberland	103	0.9	54	2.9	2.0
Essex	2619	22.0	308	16.4	-5.6
Gloucester	141	1.2	5	0.3	-0.9
Hudson	1750	14.7	301	16.1	1.4
Mercer	481	4.0	125	6.7	2.7
Middlesex	826	6.9	132	7.0	0.1
Monmouth	591	5.0	53	2.8	-2.2
Morris	508	4.3	67	3.6	-0.7
Ocean	261	2.2	54	2.9	0.7
Passaic	766	6.4	143	7.6	1.2
Sussex	42	0.4	23	1.2	0.8
Union	1149	9.7	230	12.3	2.6
Warren	43	0.4	6	0.3	-0.1
Total	11892	100.0	1875	100.1	

Table 2

Number and percent of men at each rank in the PAS sample and the 1968 census data.

Rank	1968 N	1968 %	PAS N	PAS %	PAS / 1968
Chief	378	3.2	13	0.7	3.4
Deputy Chief	75	0.6	9	0.5	12.0
Inspector	27	0.2	2	0.1	7.4
Captain	434	3.6	71	3.8	16.4
Lieutenant	855	7.2	162	8.7	18.9
Sergeant	1489	12.5	274	14.8	18.4
Detective	965	8.1	192	10.4	19.9
Patrolman	7669	64.5	1130	61.0	14.7
Total	11.892	99.9	1853	100.0	

Table 3

Number and percent of PAS sample distributed by assignment.

Assignment	N	%
Patrol	1197	64.8
Detective	195	10.6
Administration	118	6.4
Narcotic	65	3.5
Traffic	58	3.1
Records and Identification	45	2.4
Juvenile	44	2.4
Training	40	2.2
Communications	16	0.9
Other	69	3.7
Total	1847	100.0

Table 4

Number and percent of PAS sample of police officers distributed by community size across 17 counties.

Community size (in 000s)	Bergen		Burlington		Camden		Cape May		Cumberland		Essex		Gloucester		Hudson		Mercer	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Less than 10	31	27.7	14	12.5	0	0.0	14	12.5	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
10 - 30	113	21.4	49	9.3	17	3.2	5	0.9	29	5.5	44	8.3	5	0.9	20	3.8	10	1.9
30 - 50	111	22.2	0	0.0	20	4.0	0	0.0	25	5.0	105	21.0	0	0.0	60	12.0	13	2.6
50 or more	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	159	21.7	0	0.0	221	30.2	102	13.9
Total	255	13.6	63	3.4	37	2.0	19	1.0	54	2.9	308	16.4	5	0.3	301	16.1	125	6.7

Table 4 (continued)

Community size (in 000s)	Middlesex N	Middlesex %	Monmouth N	Monmouth %	Morris N	Morris %	Ocean N	Ocean %	Passaic N	Passaic %	Sussex N	Sussex %	Union N	Union %	Warren N	Warren %	Total N	Total %
Less than 10	0	0.0	15	13.4	9	8.0	14	12.5	0	0.0	9	8.0	0	0.0	6	5.4	112	6.0
10 - 30	15	2.8	9	1.7	58	11.0	40	7.6	25	4.7	14	2.6	76	14.4	0	0.0	529	28.2
30 - 50	68	13.6	19	3.8	0	0.0	0	0.0	0	0.0	0	0.0	80	16.0	0	0.0	501	26.7
50 or more	49	6.7	10	1.4	0	0.0	0	0.0	118	16.1	0	0.0	74	10.1	0	0.0	733	39.1
Total	132	7.0	53	2.8	67	3.6	54	2.9	143	7.6	23	1.2	230	12.3	6	0.3	1875	100.0

Table 5

Mean years of experience for police officers of specified rank in communities of specified size.

Community size (in 000s)	Patrolman			Detective			Sergeant			Lieutenant			Captain		
	N	MEAN	S.D.	N	MEAN	S.D.	N	MEAN	S.D.	N	MEAN	S.D.	N	MEAN	S.D.
Less than 10	64	5.38	4.19	5	13.60	4.88	23	12.00	5.30	8	14.25	3.67	5	21.20	3.31
10 - 30	304	7.06	6.07	46	11.65	6.60	81	12.74	5.13	50	18.12	5.21	28	19.11	4.10
30 - 50	290	9.16	7.57	51	12.12	7.26	72	14.38	5.86	37	21.00	5.28	20	22.40	4.44
50 or more	437	9.30	7.52	87	14.15	8.00	90	16.77	5.14	59	21.75	4.53	16	23.56	3.28
Total	1095	8.41	7.11	189	12.98	7.50	266	14.48	5.65	154	20.00	5.33	69	21.25	4.40

Table 5 (continued)

Community size (in 000s)	Inspector N	Inspector MEAN	Inspector S.D.	Deputy Chief N	Deputy Chief MEAN	Deputy Chief S.D.	Chief N	Chief MEAN	Chief S.D.	Unspecified N	Unspecified MEAN	Unspecified S.D.	Total N	Total MEAN	Total S.D.
Less than 10	0	0.0	0.0	1	24.00	0.0	2	21.50	3.50	0	0.0	0.0	108	9.03	6.62
10 - 30	0	0.0	0.0	2	23.50	0.50	5	24.00	4.47	3	7.33	4.64	519	10.30	7.30
30 - 50	2	22.00	4.00	1	25.00	0.0	3	24.67	2.62	1	16.00	0.0	477	11.94	8.19
50 or more	0	0.0	0.0	5	23.40	3.72	2	32.00	0.0	0	0.0	0.0	696	12.42	8.38
Total	2	22.00	4.00	9	23.67	2.83	12	25.08	4.77	4	9.50	5.50	1800	11.48	8.00

Table 6

Mean age of police officers of specified rank in communities of specified size.

Community size (in 000s)	Patrolman			Detective			Sergeant			Lieutenant			Captain		
	N	MEAN	S.D.	N	MEAN	S.D.	N	MEAN	S.D.	N	MEAN	S.D.	N	MEAN	S.D.
Less than 10	66	31.53	6.03	5	42.00	8.94	23	38.91	6.92	8	39.50	4.33	6	47.17	2.85
10 - 30	307	33.06	8.00	46	37.59	8.52	78	38.65	7.35	52	45.48	6.61	28	45.79	6.44
30 - 50	297	35.12	9.38	51	37.90	9.00	78	40.18	7.62	37	48.19	6.16	21	50.05	5.38
50 or more	455	34.90	10.09	89	41.45	10.11	92	43.64	6.58	64	47.42	5.36	16	50.13	3.76
Total	1125	34.26	9.23	191	39.59	9.61	271	40.81	7.45	161	46.58	6.24	71	48.14	5.75

Table 6 (continued)

Community size (in 000s)	Inspector N	Inspector MEAN	Inspector S.D.	Deputy Chief N	Deputy Chief MEAN	Deputy Chief S.D.	Chief N	Chief MEAN	Chief S.D.	Unspecified N	Unspecified MEAN	Unspecified S.D.	Total N	Total MEAN	Total S.D.
Less than 10	0	0.0	0.0	1	47.00	0.0	2	43.50	3.50	0	0.0	0.0	111	35.31	7.85
10 - 30	0	0.0	0.0	2	46.00	1.00	6	48.50	4.86	4	42.50	10.64	523	36.50	9.08
30 - 50	2	45.00	3.00	1	50.00	0.0	3	50.67	5.56	1	39.00	0.0	491	38.01	9.82
50 or more	0	0.0	0.0	5	50.20	2.32	2	58.00	3.00	0	0.0	0.0	723	38.43	10.48
Total	2	45.00	3.00	9	48.89	2.56	13	49.69	6.22	5	41.80	9.62	1848	37.59	9.83

Table 7

Mean weight of police officers of specified height in communities of specified size.

Community size (in 000s)	67" or less			68"			69"			70"			71"			72"		
	N	MEAN	S.D.	N	MEAN	S.D.	N	MEAN	S.D.	N	MEAN	S.D.	N	MEAN	S.D.	N	MEAN	S.D.
Less than 10	6	179.00	11.47	18	182.22	18.80	12	179.42	10.10	17	175.76	9.07	22	185.32	21.33	18	197.67	27.21
10 - 30	30	163.80	17.87	68	173.99	18.00	63	183.25	21.15	96	182.74	20.92	90	185.68	18.14	87	191.47	17.27
30 - 50	31	168.84	18.87	69	178.96	19.65	59	181.92	19.68	84	188.30	20.40	85	189.73	26.20	67	195.81	21.78
50 or more	35	165.29	13.14	101	176.02	18.74	72	184.82	19.43	142	185.39	18.77	135	189.37	19.90	100	194.39	21.70
Total	102	166.74	16.81	256	176.71	18.95	206	183.19	19.69	339	184.88	19.68	332	188.19	21.44	272	194.02	20.93

Table 7 (continued)

Community size (in 000s)	73" N	73" MEAN	73" S.D.	74" N	74" MEAN	74" S.D.	75" N	75" MEAN	75" S.D.	76" or more N	76" or more MEAN	76" or more S.D.	Total N	Total MEAN	Total S.D.
Less than 10	12	205.92	19.25	4	236.00	14.16	3	215.00	18.71	0	0.0	0.0	112	189.20	23.31
10 - 30	42	207.64	21.16	18	209.94	29.87	14	209.64	24.46	11	214.55	24.44	519	186.89	23.32
30 - 50	39	208.31	25.27	30	205.50	29.07	13	208.46	25.07	12	223.33	17.83	489	190.30	25.36
50 or more	72	203.44	24.46	43	208.02	27.72	13	215.62	26.07	13	219.92	23.09	726	189.33	23.65
Total	165	205.84	23.62	95	208.77	28.76	43	211.47	24.99	36	219.42	22.22	1846	188.89	24.04

Table 8

Distribution of ages of PAS sample of police officers.

Age	N	%		
less than 25	99	5.3		
25-29	376	20.2		
30-34	388	20.8		
35-39	225	12.1		
40-44	230	12.3		
45-49	265	14.2		
50 and over	282	15.1		
			$\overline{X}$	s.d.
Total	1865	100.0	37.6	9.8

Table 9

Distribution of heights of police officers of the PAS sample.

Height (in.)	N	%		
67 or less	104	5.6		
68	257	13.8		
69	208	11.1		
70	342	18.3		
71	337	18.1		
72	278	14.9		
73	166	8.9		
74	95	5.1		
75	43	2.3		
76 or more	36	1.9		
			$\overline{X}$	s.d.
Total	1866	100.0	70.6	2.1

Table 10

Distribution of weights of police officers of PAS sample.

Weight	N	%		
160 lbs. or less	201	10.9		
161-170	241	13.0		
171-180	351	19.0		
181-190	317	17.2		
191-200	272	14.7		
201-210	179	9.7		
211-220	119	6.4		
221 lbs. or more	167	9.0		
			$\bar{X}$	s.d.
Total	1847	100.0	188.9	24.0

Table 11

Distribution of years as police officer for PAS sample.

Years as police officer	N	%		
less than 5	457	25.2		
5-9	419	23.1		
10-14	277	15.3		
15-19	271	14.9		
20 or more	391	21.5		
			$\overline{X}$	s.d.
Total	1815	100.0	11.5	8.00

Table 12

Distribution of weight changes since appointment of police officers of PAS sample.

Weight Change	N	%		
loss of more than 20 lbs.	32	1.8		
loss of 11-20	48	2.6		
loss of 1-10	138	7.6		
gain of 0-10	767	42.1		
gain of 11-20	396	21.7		
gain of 21-30	165	9.1		
gain of more than 30 lbs.	277	15.2		
			$\bar{X}$	s.d.
Total	1823		14.2	16.5

Table 13

Present physical condition as reported by PAS sample respondents.

	N	%
Excellent	609	32.6
Good	1051	56.2
Fair	192	10.3
Poor	18	1.0
Total	1870	

Table 14

Number and percent of PAS sample wearing glasses at appointment.

	N	%
yes	141	7.6
no	1726	92.4
Total	1867	

Table 15

Number and percent of PAS sample using glasses for reading.

	N	%
yes	640	34.9
no	1192	65.1
Total	1832	

Table 16

Number and percent of PAS sample using glasses for driving.

	N	%
yes	222	12.1
no	1615	87.9
Total	1837	

Table 17

Number and percent of PAS sample reporting hearing difficulty.

	N	%
yes	144	7.8
no	1711	92.2
Total	1855	

Table 18

Number and percent of 12 physical symptoms or diseases checked by PAS sample of police officers.

Number of Symptoms or Diseases checked	N	%	Cumulative %
0	738	43.0	100.0
1	487	28.4	57.0
2	258	15.0	28.6
3	138	8.0	13.6
4	56	3.3	5.6
5	21	1.2	2.3
6	10	0.6	1.1
7	1	0.1	0.5
8	3	0.2	0.4
9	0	0.0	0.2
10	0	0.0	0.2
11	3	0.2	0.2
12	0	0.0	0.0
Total	1715	100.0	

Table 19

Number and percent of police officers in PAS sample indicating presence of 12 specific physical symptoms or diseases.

Symptom or Disease	N	%
Hemorrhoids	282	16.4
Lung Disease	20	1.2
Back Trouble	411	24.0
Loss of Teeth	353	20.6
Varicose Veins	55	3.2
Heart Disease	52	3.0
Flat Feet	33	1.9
Hernia	80	4.7
Ulcer	127	7.4
High Blood Pressure	151	8.8
Nervous Disorder	124	7.2
Other	182	10.6
Total	1870	109.0*

*Multiple responses account for more than 100% response.

Table 20

Number and percent of PAS sample reporting importance of physical condition for the job.

Importance	N	%
Very important	1287	69.0
Average	537	28.8
Little importance	42	2.2
Total	1866	

Table 21

Number and percent of PAS sample reporting frequency of exercise.

Frequency	N	%
4-7 times a week	298	21.5
1-3 times a week	583	42.1
Irregularly	488	35.2
Never	16	1.2
Total	1385	100.0

Table 22

Importance of physical condition in relation to regularity of exercise for PAS sample responding to both items.

	Regularity							
	4-7/week		1-3/week		Irregular		Never	
Importance	N	%	N	%	N	%	N	%
Very	248	24.1	463	45.0	313	30.4	6	0.6
Average	48	14.6	109	33.2	163	49.7	8	2.4
Little	2	9.1	9	40.9	9	40.9	2	9.1
Total	298	21.6	581	42.1	485	35.1	16	1.2

Table 23

Number and percent of PAS sample of police officers routinely performing one or more of specified exercises.

Exercise	N	%
Lift weights	295	16.0
Calisthenics	690	37.4
Jog	378	20.5
Swim	468	25.3
Other	675	36.5
Total	2506	135.7*

*Multiple responses account for more than 100.0% total.

Table 24

Number and percent of PAS sample indicating specific physical activities required most on job.

Activity	N	%
Sitting	1449	77.3
Walking	1025	54.7
Running	220	11.7
Standing	110	5.9
Driving	93	5.0
Lifting	44	2.3
Climbing	47	2.5
Wrestling	39	2.1
Other	65	3.5
Total	3092*	165.0*

*Multiple responses

Table 25

Number and percent of PAS sample electing to keep, eliminate or change Civil Service physical performance tests.

	Chinning Bar		Sit Ups		Broad Jump		Push Ups		100 yd. Agility		Squat Jump	
	N	%	N	%	N	%	N	%	N	%	N	%
Keep	1390	78.4	1452	82.4	1458	82.5	1434	81.4	1580	90.1	1300	73.5
Eliminate	193	10.9	70	4.0	209	11.8	72	4.1	90	5.1	285	16.1
Change	189	10.7	240	13.6	100	5.7	256	14.5	84	4.8	184	10.4
Total	1772	100.0	1762	100.0	1767	100.0	1762	100.0	1754	100.0	1769	100.0

Table 26

Number and percent of PAS sample indicating present ability to pass each part of the Civil Service physical performance battery.

Test	N	%
Chinning	1338	71.4
Sit Ups	1553	82.8
Broad Jump	1449	77.3
Push Ups	1486	79.3
100 yd. Agility	1419	75.7
Squat Jump	1296	69.1

Table 27

Presumed ability to pass Civil Service physical performance test related to attitude toward retention of that test in battery.

	Chinning Bar				Sit Ups				Broad Jump			
	Pass		Fail		Pass		Fail		Pass		Fail	
	N	%	N	%	N	%	N	%	N	%	N	%
Keep	1047	82.0	343	69.3	1225	82.9	227	79.9	1183	85.8	275	70.9
Eliminate	83	6.5	110	22.2	38	2.6	32	11.3	129	9.4	80	20.6
Change	147	11.5	42	8.5	215	14.5	25	8.8	67	4.9	33	8.5
Total	1277	100.0	495	100.0	1478	100.0	284	100.0	1379	100.1	388	100.0
	$\chi^2 = 13.8$ $P < .001$				$\chi^2 = 51.4$ $P < .001$				$\chi^2 = 47.70$ $P < .001$			

Table 27 (Continued)

	Push Ups				100 yd. Agility				Squat Jump			
	Pass		Fail		Pass		Fail		Pass		Fail	
	N	%	N	%	N	%	N	%	N	%	N	%
Keep	1162	82.1	272	78.4	1255	93.3	325	79.5	966	78.3	334	62.4
Eliminate	33	2.3	39	11.2	38	2.8	52	12.7	152	12.3	133	24.9
Change	220	15.5	36	10.4	52	3.9	32	7.8	116	9.4	68	12.7
Total	1415	99.9	347	100.0	1345	100.0	409	100.0	1234	100.0	535	100.0
	$\chi^2 = 59.8$				$\chi^2 = 76.7$				$\chi^2 = 53.2$			
	$P < .001$				$P < .001$				$P < .001$			

Table 28

Percent of PAS sample at each rank reporting performance of specific physical activities on the job.

Rank	Sitting	Walking	Running	Standing	Driving	Lifting	Climbing	Wrestling	Other	Number in Category
Patrolman	72.7	55.0	13.8	6.5	4.6	3.1	2.4	2.1	4.0	1130
Detective	75.0	70.8	9.9	5.2	6.3	0.0	5.2	1.6	3.6	192
Sergeant	83.9	51.1	10.9	5.5	6.2	2.6	2.6	2.6	2.2	274
Lieutenant	91.4	45.7	6.8	5.6	4.3	0.0	1.2	1.9	1.9	162
Captain	95.8	46.5	2.8	2.8	4.2	1.4	1.4	0.0	5.6	71
Inspector	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2
Deputy Chief	88.9	44.4	0.0	0.0	11.1	0.0	0.0	0.0	0.0	9
Chief	92.3	53.8	0.0	7.7	0.0	0.0	0.0	0.0	0.0	13
Total	77.4	54.8	11.7	5.9	5.0	2.3	2.5	2.0	3.5	1853

Table 29

Percent of PAS sample at each assignment category reporting performance of specific physical activity on the job.

Assignment	Sitting	Walking	Running	Standing	Driving	Lifting	Climbing	Wrestling	Other	Number in Category
Training	70.0	52.5	17.5	12.5	5.0	0.0	0.0	7.5	25.0	40
Patrol	76.0	52.4	12.9	5.7	4.7	3.2	2.5	2.2	2.7	1197
Detective	81.0	68.2	8.7	4.1	6.7	0.5	3.6	1.5	4.6	195
Narcotic	64.6	55.4	23.1	0.0	0.0	0.0	0.0	4.6	6.2	65
Juvenile	79.5	79.5	18.2	6.8	11.4	0.0	6.8	0.0	4.5	44
Rec. & Id.	82.2	64.4	2.2	11.1	2.2	0.0	4.4	0.0	2.2	45
Communication	81.3	6.3	0.0	6.3	6.3	6.3	0.0	0.0	6.3	16
Administration	89.8	39.0	4.2	5.1	2.5	0.8	0.8	0.8	0.8	118
Traffic	74.1	60.3	5.2	12.1	10.3	3.4	0.0	1.7	3.4	58
Other	78.3	65.2	13.0	7.2	8.7	0.0	4.3	2.9	4.3	69
Total	77.2	54.6	11.9	5.8	5.0	2.3	2.5	2.1	3.5	1847

Table 30

Percent of PAS sample having specified years of experience as police officer reporting performance of specific physical activities on the job.

Years as police officer	Sitting	Walking	Running	Standing	Driving	Lifting	Climbing	Wrestling	Other	Number in Category
less than 5	72.0	54.7	16.8	6.3	4.8	3.3	2.6	2.4	5.0	457
5-9	76.8	56.1	17.7	6.7	5.3	3.1	2.6	3.8	3.1	419
10-14	79.8	51.3	10.5	5.1	5.8	2.9	2.9	1.4	2.2	277
15-19	83.0	55.4	7.4	5.2	6.3	1.8	1.8	1.1	2.2	271
20-24	80.2	56.3	2.7	7.2	3.8	0.0	3.0	0.4	2.7	263
25 or more	79.7	50.0	1.6	4.7	3.9	1.6	1.6	0.0	4.7	128
Total	77.7	54.5	11.5	6.1	5.1	2.4	2.5	1.9	3.4	1815

Table 31

Percent of PAS sample in each age category reporting performance of specific physical activities on the job.

Age	Sitting	Walking	Running	Standing	Driving	Lifting	Climbing	Wrestling	Other	Number in Category
less than 25	66.7	54.5	24.2	10.1	2.0	3.0	0.0	4.0	14.1	99
25-29	72.3	58.2	20.7	6.9	4.5	3.2	2.7	4.0	3.7	376
30-34	76.3	52.6	13.1	3.9	5.9	3.4	3.4	2.8	2.6	388
35-39	79.6	52.0	12.9	8.4	6.2	2.2	2.7	1.8	3.6	225
40-44	83.0	51.7	7.8	3.5	6.1	2.6	0.9	0.9	1.3	230
45-49	82.3	54.0	4.2	7.2	4.5	0.8	2.3	1.1	2.6	265
50 or more	77.3	57.8	3.2	4.6	3.9	1.1	3.5	0.0	3.2	282
Total	77.2	54.6	11.8	5.9	5.0	2.4	2.5	2.1	3.5	1865

Table 32

Percent of PAS sample within each weight change category reporting performance of physical activity on the job.

Weight change	Sitting	Walking	Running	Standing	Driving	Lifting	Climbing	Wrestling	Other	Number in Category
Loss of 21 lbs. or more	78.1	59.4	12.5	9.4	6.3	0.0	0.0	3.1	3.1	32
Loss of 11-20	79.2	60.4	18.8	4.2	2.1	2.1	2.1	2.1	8.3	48
Loss of 1-10	73.2	58.0	10.9	5.8	5.8	2.2	1.4	6.5	4.3	138
Gain of 0-10	74.7	55.1	13.3	5.6	4.0	2.5	2.0	1.8	3.9	767
Gain of 11-20	78.0	55.1	11.1	7.8	4.8	2.8	3.8	1.5	3.3	396
Gain of 21-30	78.8	51.5	11.5	6.7	7.9	1.2	2.4	0.6	2.4	165
Gain of 30 lbs. or more	83.4	53.1	8.3	3.6	5.8	2.2	3.2	2.2	2.2	277
Total	77.2	54.9	11.8	5.9	4.9	2.3	2.5	2.1	3.5	1823

Table 33

Percent of PAS sample reporting performance of specific physical activities on the job and claiming specific symptoms or diseases.

	Hemorrhoid	Lung Disease	Back Trouble	Loss of Teeth	Varicose Veins	Heart Disease	Flat Feet	Hernia	Ulcer	High Blood Pressure	Nervous Disorder	None	Number in Category
Sitting	17.4[a]	1.1	24.8	21.1	2.7[a]	3.0	1.9	4.2	8.0	8.5	7.8	41.5[b]	1334
Walking	14.6[a]	0.9	22.6	20.1	3.6	2.9	1.9	4.9	7.4	7.9	6.9	45.3[a]	936
Running	12.6	1.1	16.8[b]	10.5[c]	2.6	1.6	1.1	2.1	6.3	5.3	8.4	58.9[c]	190
Standing	17.3	1.9	31.7	22.1	2.9	2.9	0.0	4.8	11.5	5.8	8.7	43.3	104
Driving	19.5	0.0	32.2	24.1	1.1	3.4	4.6	4.6	8.0	5.7	6.9	37.9	87
Lifting	15.8	2.6	34.2	13.2	0.0	0.0	0.0	2.6	10.5	13.2	7.9	50.0	38
Climbing	9.5	0.0	19.0	21.4	0.0	0.0	0.0	7.1	11.9	4.8	2.4	45.2	42
Wrestling	23.5	0.0	14.7	8.8	2.9	0.0	0.0	2.9	2.9	8.8	5.9	58.8	34
Other	10.2	1.7	13.6	27.1	1.7	3.4	1.7	3.4	5.1	8.5	6.8	52.5	59
Total	16.4	1.2	24.0	20.6	3.2	3.0	1.9	4.7	7.4	8.8	7.2	43.0	1715

a $P < .05$
b $P < .02$
c $P < .001$

Table 34

Number, percent, and mean age of PAS respondents reporting themselves as being in either excellent, good, fair or poor health.

Health Status	$\bar{X}$	s.d.	N	%
Excellent	34.9	9.1	605	32.5
Good	38.4	9.9	1047	56.3
Fair	41.3	9.9	190	10.2
Poor	43.7	6.8	18	1.0
Total	37.6	9.8	1860	100.0

Table 35

Percent of PAS sample with stated number of years as a police officer reporting present physical condition as excellent, good, fair or poor.

Years as police officer	Excellent	Good	Fair	Poor	Number in Category
less than 5	46.5	47.6	5.9	0.0	456
5-9	36.7	54.9	7.9	0.5	417
10-14	27.1	60.3	11.6	1.1	277
15-19	24.4	62.2	10.7	2.6	270
20-24	19.5	62.6	15.6	2.3	262
25 or more	25.0	57.0	18.0	0.0	128
Total	32.5	56.2	10.2	1.0	1810

Table 36

Percent of PAS sample at stated rank reporting present physical condition as excellent, good, fair or poor.

Rank	Excellent	Good	Fair	Poor	Number in Category
Patrolman	35.1	54.5	9.3	1.1	1127
Detective	35.1	54.5	9.9	0.5	191
Sergeant	28.9	59.3	11.4	0.4	273
Lieutenant	23.5	58.6	16.0	1.9	162
Captain	19.7	66.2	12.7	1.4	71
Inspector	50.0	50.0	0.0	0.0	2
Deputy Chief	22.2	77.8	0.0	0.0	9
Chief	38.5	46.2	15.4	0.0	13
Total	32.6	56.1	10.4	1.0	1853

Table 37

Percent of PAS sample with stated assignment reporting present physical condition to be excellent, good, fair or poor.

Assignment	Excellent	Good	Fair	Poor	Number in Category
Training	40.0	52.5	7.5	0.0	40
Patrol	34.1	54.7	10.1	1.0	1193
Detective	32.0	55.2	11.3	1.5	194
Narcotic	30.8	64.6	4.6	0.0	65
Juvenile	47.7	43.2	9.1	0.0	44
Records & Identification	22.2	62.2	15.6	0.0	45
Communication	18.8	62.5	12.5	6.3	16
Administration	26.3	62.7	10.2	0.8	118
Traffic	29.3	58.6	12.1	0.0	58
Other	18.8	69.6	10.1	1.4	69
Total	32.6	56.2	10.2	1.0	1842

Table 38

Percent of PAS sample with stated weight change reporting present physical condition as excellent, good, fair or poor.

Weight change	Excellent	Good	Fair	Poor	Number in Category
Loss of 21 lbs. or more	45.2	48.4	6.4	0.0	31
Loss of 11-20	35.4	58.3	6.3	0.0	48
Loss of 1-10	32.6	54.3	12.3	0.8	138
Gain of 0-10	40.5	52.6	6.3	0.6	766
Gain of 11-20	25.9	60.9	13.2	0.0	394
Gain of 21-30	29.9	61.0	7.9	1.2	164
Gain of 30 lbs. or more	19.9	59.6	17.0	3.6	277
Total					1818

Table 39

Percent of PAS respondents claiming presence of specific symptom or disease reporting persent physical condition as excellent, good, fair or poor.

Disease	Excellent	Good	Fair	Poor	Number in Category
Hemorrhoids	19.5	62.1	16.7	1.7	282
Lung Disease	20.0	25.0	40.0	15.0	20
Back Trouble	19.0	62.0	16.3	2.7	410
Loss of Teeth	19.7	61.5	16.5	2.3	351
Varicose Veins	5.5	52.7	34.5	7.3	55
Heart Disease	5.8	38.5	44.2	11.5	52
Flat Feet	21.2	51.5	18.2	9.1	33
Hernia	18.8	65.0	15.0	1.2	80
Ulcer	12.7	64.3	19.8	3.2	126
High Blood Pressure	12.7	52.0	32.0	3.3	150
Nervous Disorder	13.0	58.5	22.0	6.5	123
Other	16.5	63.2	19.2	1.1	182
None	44.1	51.3	4.5	0.1	737

Table 40

Percent of PAS sample in health status categories indicating present ability to pass physical performance tests.

	Chinning Bar	Sit Ups	Broad Jump	Push Ups	100 yd. Agility	Squat Jump	Number in Category
Excellent	82.9	91.6	87.7	89.3	88.3	83.7	609
Good	69.0	82.3	75.7	77.7	73.5	65.7	1051
Fair	51.6	63.0	56.8	59.4	51.6	46.4	192
Poor	33.3	33.3	33.3	44.4	33.3	22.2	18
Total	71.4	82.9	77.3	79.3	75.7	69.1	1870

Table 41

Percent of PAS sample in each age category claiming presence of disease or symptom.

Age	Hemorrhoid	Lung Disease	Back Trouble	Loss of Teeth	Varicose Veins	Heart Disease	Flat Feet	Hernia	Ulcer	High Blood Pressure	Nervous Disorder	Other	None	Number in Category
Less than 25	3.5	0.0	1.2	2.4	0.0	0.0	1.2	0.0	1.2	0.0	1.2	2.4	88.2	85
25-29	9.3	0.6	12.8	6.6	0.0	0.0	0.6	1.5	3.6	1.5	1.2	7.5	67.8	335
30-34	13.6	0.6	20.8	8.1	0.6	0.6	2.0	2.0	3.8	6.4	5.8	7.8	53.5	346
35-39	17.9	2.5	32.8	17.4	6.5	1.5	2.5	3.5	10.0	10.9	9.0	10.0	39.8	201
40-44	20.9	0.9	28.4	26.0	3.3	3.3	2.8	5.1	7.4	8.8	12.1	14.9	33.5	215
45-49	22.0	1.2	33.9	31.1	5.5	5.5	1.6	9.8	9.8	12.6	8.3	13.4	22.8	254
50 or more	22.6	2.2	29.6	47.8	7.0	9.3	3.0	8.9	14.4	18.5	12.2	15.6	14.8	270
Significance level of χ^2	.001	n.s.	.001	.001	.001	.001	n.s.	.001	.001	.001	.001	.001	.001	

Table 42

Percent of PAS sample with specified years experience as police officer claiming presence of disease or symp om.

Years as police officer	Hemorrhoid	Lung Disease	Back Trouble	Loss of Teeth	Varicose Veins	Heart Disease	Flat Feet	Hernia	Ulcer	High Blood Pressure	Nervous Disorder	Other	None	Number in Category
Less than 5	6.0	0.0	9.7	5.0	0.2	0.2	0.7	1.5	1.5	0.7	1.5	4.7	76.1	401
5-9	13.7	1.1	19.7	9.5	0.8	0.3	1.8	2.1	5.5	6.1	4.7	8.9	52.4	380
10-14	22.6	2.4	32.9	18.3	5.2	2.0	2.8	3.2	8.7	12.7	9.5	10.7	33.3	252
15-19	20.7	0.4	30.9	31.3	3.9	4.7	2.7	7.0	8.2	10.9	12.5	16.0	27.3	256
20-24	26.0	1.2	33.9	40.6	7.1	6.7	2.4	10.6	16.1	13.4	9.8	13.0	17.3	254
25 or more	18.0	4.1	30.3	46.7	7.4	12.3	2.5	9.8	11.5	23.0	11.5	16.4	13.1	122
Significance level of χ^2	.001	.01	.001	.001	.001	.001	n.s.	.001	.001	.001	.001	.001	.001	

Table 43

Percent of PAS sample in specified rank claiming presence of disease or symptom.

Rank	Hemorrhoid	Lung Disease	Back Trouble	Loss of Teeth	Varicose Veins	Heart Disease	Flat Feet	Hernia	Ulcer	High Blood Pressure	Nervous Disorder	Other	None	Number in Category
Patrolman	13.9	1.0	21.3	16.0	2.5	2.2	1.7	3.2	5.8	7.3	6.3	8.1	52.1	1016
Detective	14.9	1.1	21.0	22.7	0.6	4.4	0.6	7.7	7.2	6.6	5.0	11.0	39.2	181
Sergeant	22.0	1.2	32.9	25.6	6.1	2.8	4.1	5.3	7.3	11.8	9.3	16.3	28.9	246
Lieutenant	19.6	2.5	30.4	31.6	5.1	4.4	2.5	6.3	10.8	13.3	10.1	16.5	26.6	158
Captain	27.1	1.4	22.9	38.6	8.6	8.6	0.0	7.1	18.6	11.4	10.0	10.0	21.4	70
Inspector	50.0	0.0	50.0	50.0	0.0	0.0	50.0	0.0	50.0	0.0	0.0	0.0	0.0	2
Deputy Chief	22.2	0.0	11.1	22.2	0.0	0.0	0.0	22.2	22.2	22.2	22.2	33.3	11.1	9
Chief	23.1	0.0	46.2	23.1	0.0	7.7	0.0	7.7	23.1	30.8	7.7	15.4	7.7	13
Significance level of χ^2	.01	n.s.	.01	.001	.01	n.s.	.001	.01	.001	.01	n.s.	.001	.001	

Table 44

Percent of PAS sample in each assignment category claiming presence of disease or symptom.

Assignment	Hemorrhoid	Lung Disease	Back Trouble	Loss of Teeth	Varicose Veins	Heart Disease	Flat Feet	Hernia	Ulcer	High Blood Pressure	Nervous Disorder	Other	None	Number in Category
Training	5.4	0.0	18.9	16.2	5.4	2.7	0.0	0.0	8.1	5.4	2.7	10.8	62.2	37
Patrol	16.5	1.0	24.6	17.7	3.0	1.6	2.2	3.6	6.6	8.1	6.9	9.3	47.5	1083
Detective	14.8	3.8	23.0	23.5	4.4	5.5	1.1	9.8	9.8	9.3	7.7	10.9	35.5	183
Narcotic	15.8	0.0	17.5	24.6	0.0	3.5	3.5	1.8	1.8	3.5	0.0	8.8	43.9	57
Juvenile	22.0	0.0	31.7	19.5	2.4	2.4	2.4	2.4	2.4	2.4	7.3	12.2	39.0	41
Records & Iden.	20.9	0.0	18.6	20.9	0.0	7.0	0.0	4.7	4.7	18.6	14.0	14.0	32.6	43
Communication	21.4	0.0	28.6	42.9	7.1	7.1	0.0	21.4	14.3	14.3	21.4	21.4	14.3	14
Administration	19.5	0.0	24.8	31.0	4.4	3.5	1.8	5.3	12.4	14.2	8.0	15.9	27.4	113
Traffic	17.5	1.8	22.8	28.1	1.8	8.8	0.0	1.8	10.5	8.8	5.3	15.8	31.6	57
Other	12.7	1.6	22.2	25.4	4.8	11.1	1.6	9.5	9.5	12.7	7.9	11.1	36.5	63
Significance level of χ^2	n.s.	n.s.	n.s.	.01	n.s.	.001	n.s.	.001	n.s.	n.s.	n.s.	n.s.	.001	

Table 45

Percent of PAS sample in each weight change category claiming presence of disease or symptom.

Weight Change	Hemorrhoid	Lung Disease	Back Trouble	Loss of Teeth	Varicose Veins	Heart Disease	Flat Feet	Hernia	Ulcer	High Blood Pressure	Nervous Disorder	Other	None	Number in Category
Loss of more than 20 lbs.	11.5	0.0	15.4	15.4	3.8	7.7	3.8	7.7	15.4	0.0	0.0	3.8	42.3	26
Loss of 11-20	19.0	0.0	16.7	14.3	2.4	0.0	0.0	2.4	2.4	2.4	4.8	7.1	52.4	42
Loss of 1-10	19.4	0.0	18.5	20.2	3.2	5.6	0.8	3.2	8.1	6.5	8.1	10.5	47.6	124
Gain of 0-10	12.5	0.7	20.3	16.6	2.6	2.4	1.7	3.6	5.2	6.7	6.6	8.9	51.9	698
Gain of 11-20	19.2	2.2	26.9	23.1	2.7	3.0	1.1	5.2	10.2	6.6	7.1	11.8	36.8	364
Gain of 21-30	20.4	0.7	23.7	25.0	3.9	3.9	2.6	7.2	6.6	15.1	7.9	9.9	34.2	152
Gain of more than 30 lbs.	19.8	2.3	35.1	25.6	5.7	3.1	3.8	5.3	10.3	16.0	9.5	14.5	29.8	262
Significance level of χ^2	.02	n.s.	.001	.02	n.s.	n.s.	n.s.	n.s.	.02	.001	n.s.	n.s.	.001	

Table 46

Percent of PAS sample in each frequency of exercise category claiming presence of disease or symptom.

Frequency of exercise	Hemorrhoid	Lung Disease	Back Trouble	Loss of Teeth	Varicose Veins	Heart Disease	Flat Feet	Hernia	Ulcer	High Blood Pressure	Nervous Disorder	Other	None	Number in Category
4-7 times a week	12.3	0.0	22.3	17.1	2.2	4.5	1.1	5.2	4.5	7.8	4.1	8.6	49.8	519
1-3 times a week	13.7	1.2	19.7	15.2	2.1	2.7	2.1	3.4	6.9	6.9	6.6	9.2	49.7	269
Irregular	20.1	0.7	28.7	25.8	3.8	2.4	1.1	4.0	7.7	9.7	7.9	12.6	36.9	453
Never	28.6	14.3	42.9	42.9	7.1	7.1	7.1	7.1	35.7	14.3	28.6	28.6	21.4	14
Significance level of χ^2	.01	.001	.01	.001	n.s.	n.s.	n.s.	n.s.	.001	n.s.	.01	.05	.001	

Table 47

Percent of PAS in specified age categories routinely performing stated exercises.

Age	Lift Weights	Calis-thenics	Jog	Swim	Other	None	Number in Category
Less than 25	21.4	58.2	29.6	18.4	36.7	11.2	98
25-29	24.1	48.9	26.8	21.4	34.1	19.7	370
30-34	19.2	46.8	26.5	20.3	31.2	20.8	385
35-39	17.6	35.3	23.1	24.9	33.9	28.1	221
40-44	14.4	31.9	16.2	32.3	33.6	25.3	229
45-49	7.7	19.2	12.3	26.5	42.3	33.5	260
50 or more	5.8	24.0	9.8	33.1	46.9	25.5	275

Table 48

Percent of PAS in specified age categories performing exercise on regular or irregular basis.

Age	4-7 times a week	1-3 times a week	Irregular	Number in Category
Less than 25	24.4	48.8	26.7	86
25-29	20.9	53.2	24.9	297
30-34	20.9	45.5	33.2	301
35-39	20.5	42.9	36.5	156
40-44	17.9	36.9	44.6	168
45-49	22.9	31.8	44.1	170
50 or more	24.4	29.9	41.3	201

Table 49

Number and percent of PAS sample having physical examination in selected time periods.

Time of last physical examination	N	%
6 months or less	760	41.9
7 - 12 months	562	31.0
13 - 24 months	283	15.6
2 years or more	208	11.5
Total	1813	100.0

Table 50

Number and percent of PAS sample reporting attitude toward physical fitness program. "If no program is provided, do you think one should be?"

	N	%
Yes	1350	79.1
No	356	20.9
Total	1706	100.0

Table 51

"If your jurisdiction has a physical fitness program, do you participate?"

	N	%
Yes	48	52.2
No	44	47.8
Total	92	100.0